

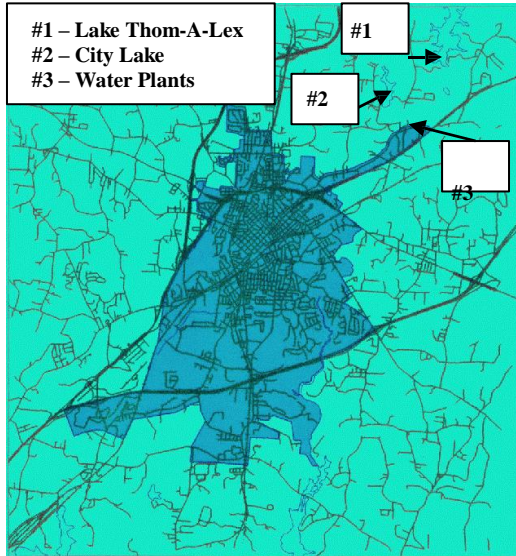
2020 Annual Drinking Water Quality Report

City of Lexington, NC Water System

Water System # 02-29-010



The City of Lexington operates two water treatment plant facilities. This brochure is a summary of the quality of the drinking water provided by the City of Lexington to its customers from January 1 through December 31, 2020. This report also includes information about the source of your drinking water, what it contains, as well as how it measures up to state and federal standards. It is a record reflecting the hard work of the employees involved in treatment and distribution of drinking water and an affirmation of the City's commitment to provide a safe and reliable supply of water to its customers.



Sources of Lexington's drinking water: The Cities of Lexington and Thomasville share Lake Thom-A-Lex as a water supply. It is classed as a surface water supply. The lake was constructed in the 1950's and has been the regular source of Lexington's drinking water since then. The lake initially held 2.2 billion gallons of water. Since the lake was built, silt has claimed less than 10% of its capacity. The City of Lexington has installed an aeration system in the lower part of the lake to improve water quality.

In emergencies, the City has two emergency supplies: City Lake, which contains about 150 million gallons of water, and several interconnections with Davidson Water, Inc. Water must be pumped from City Lake to Lexington's Water Plants. The interconnections with Davidson Water, Inc. provide an opportunity for the two water systems to support each other in emergencies.

Lexington's water is treated by two plants located on the same site off Old Greensboro Road at Business I-85. The older plant was built in 1922. It has had several expansions as well as upgrades over the years. The newer plant was built in 1967. Together, they are

pumping an average of 3 million gallons of water a day with the capability of pumping over 9 million gallons a day. The City of Lexington ensures that up to 3 million gallons of treated water is stored at the water plants at any time for emergency use. The quality of treated water from both plants must meet state and federal regulations.

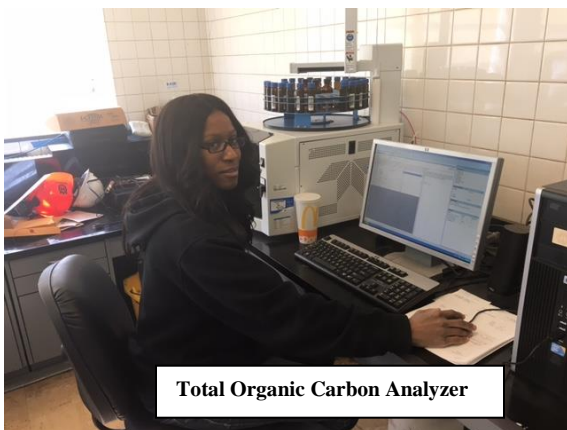


Lexington Water Treatment Plants Aerial View



Questions, Complaints, Emergency's:

Emergencies:	After hours 336-248-2337
Emergencies:	Business Hrs. 336-248-3930
Questions:	Business Hrs. 336-248-3930
Website	www.lexingtonnc.gov
Email:	llshoaf@lexingtonnc.gov
Complaints:	Business Hrs. 336-248-3930



Distribution System: City personnel maintain more than 192 miles of water lines, over 10,000 water meters, and 3 elevated storage tanks holding up to 2 million gallons of treated water between them. Water meters are read and billed monthly.

Public comment is welcome at the regularly scheduled meetings of the Lexington Utilities Commission and the Lexington City Council. The Utilities Commission's quarterly meetings are held at Lexington's City Hall located at 28 West Center Street starting at 4:00 P.M. The City Council has its regularly scheduled meetings on the second and fourth Monday of each month. Meetings are held at Lexington's City Hall starting at 6:00 P.M. A calendar providing meeting dates, times and agendas is available on the City's website at <http://lexingtoncitync.igmp2.com/citizens/default.aspx>

Back View of Lexington Water Plant





Lexington Water Treatment Plant Basins

What EPA Wants You to Know

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [Name of Utility] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban Stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban Stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban Stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Table of Tested Contaminants

Microbiological Testing	Violation Y/N	Level Detected	Average	Units	MCLG	MCL (*3)	Source
Total Coliform	N	ND			0	<5% of samples	naturally present in the environment
Fecal Coliform	N	ND			0	none	naturally present in the environment
Turbidity	N	0.01-0.29	0.05	NTU's			soil runoff
Radiological Testing							
Alpha emitters	N	ND		pCi/l	0	15	erosion of natural deposits
Beta/photon emitters	N	4.26		mrem/yr	0	50	erosion of natural deposits
Inorganic Testing							
Barium	N	ND	N/A	mg/l	2	2	drilling wastes; refineries; natural deposits
Copper	N	0.050 (*2)	0.268	mg/l	1.3	1.3	corrosion and leaching of metal; wood preservatives
Fluoride	N	0.01 – 0.73	0.37	mg/l	4	4	natural deposits; water treatment additive
Lead	N	< 3 (*2)	< 3	ppb	0	15	corrosion of plumbing; erosion of natural deposits
Nitrate	N	ND	N/A	mg/l	10	10	fertilizer; treated sewage, erosion of natural deposits
Organic Testing							
2,4-D	N	ND	N/A	mg/l	0.007	0.007	herbicide
TTHMs (*1)	N	8-106	29	ppb	0	80	by-product of drinking water chlorination
HAA5 (*1)	N	6-59	36	ppb	0	60	by-product of drinking water chlorination
Atrazine	N	ND	ND	mg/l	0.0002	0.003	pesticide
Dalapon	N	ND	N/A	mg/l	0.2	0.2	pesticide
Simazine	N	0.00019	ND	mg/l	0.004	0.004	pesticide
Di(2-ethylhexyl)adipate	N	ND	N/A	mg/l	0	0.005	pesticide

*1. Results reported as averages of 4 consecutive monitoring periods. *2. Less than 10% of samples exceed the MCL. *3. MCL's (maximum contaminant levels) are very stringent, a person would have to drink two quarts of water a day at the MCL level for a lifetime to have a one in a million chance of having the health effect ascribed to a contaminant.

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

TTHM's - Phase II		2020			
(mg/L)					
Quarter		PPG	201 W 2nd Ave	1914 Cotton Grove	405 Farmer
		B01	B02	B03	B04
1st		0.0179	0.0283	0.0181	0.1061
2nd		0.0322	0.0124	0.0331	0.0129
3rd		0.0480	0.0192	0.0500	0.0187
4th		0.0393	0.0099	0.0089	0.0097
LRAA		0.03435	0.01745	0.02753	0.03685
LRAA limit		0.08000	0.08000	0.08000	0.08000

= violations under new stage 2 rule. An individual notice would have to be handed out to each mcl violation, but no public notice since all LRAA'S remained below 0.08000. **Public notices issued**

HAA5's - Phase II		2020			
(mg/L)					
Quarter		PPG	201 W 2nd Ave	1914 Cotton Grove	405 Farmer
		B01	B02	B03	B04
1st		0.0455	0.0465	0.0477	0.0454
2nd		0.0146	0.0303	0.0152	0.0295
3rd		0.0589	0.0575	0.0594	0.0588
4th		0.0060	0.0209	0.0490	0.0068
LRAA		0.03125	0.0388	0.042825	0.035125
LRAA limit		0.06000	0.06000	0.06000	0.06000

= violations under new stage 2 rule. An individual notice would have to be handed out to each mcl violation & public notices due to the LRAA'S exceeding 0.06000. **Public notices issued**

Important Drinking Water Definitions:

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Locational Running Annual Average (LRAA) – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

Level 1 Assessment- A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Abbreviation

CCR- Consumer confidence Report

RTCR- Revised Total Coliform Rule

SOP- Standard Operating Procedure

CFR- Code of Federal Regulation

TC- Total Coliform

EC- E coli

En español: Para obtener más información sobre el agua potable o para obtener información sobre su cuenta de agua, por favor llame a la gerente de la oficina de la ciudad durante las horas de oficina en el teléfono 336-248-3910.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for the City of Lexington Water System was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Source Name	Susceptibility Rating	SWAP Report Date
Lake Thom-A-Lex	Higher	9/12/2017

The complete SWAP Assessment report for Thom-A-Lex may be viewed online at:

https://www.ncwater.org/files/swap/SWAP_Reports/0229010_9_12_2017_11_17.pdf. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the system’s potential to become contaminated by PCSs in the assessment area.

Violations that Your Water System Received for the Report Year

During 2018, or during any compliance period that ended in 2018, we received a **Maximum Contaminant Level violation** that covered the time period of 1st and 2nd quarter disinfection by-product sampling. We are/have begun weekly monitoring to determine control by-products and have added a carbon feed system to the #2 plant to further reduce disinfection by products.

Maximum Contaminant Level Violations

MCL Violation	Explanation	Length of Violation	Steps Taken to Correct the Violation	Health Effects Language
TTHMs Total Trihalomethyhanes	TTHMs are a by-product of drinking water disinfection process. The standard for TTHMs is 0.080 mg/l. TTHMs were found at 0.1061mg/l	1 st quarter	The City of Lexington has begun weekly monitoring to determine how it will control these by-products in the future. We will be installing aeration to elevated tanks to help further reduce disinfection by-products.	Cancer risk; potential reproductive system effects; liver/kidney/nervous system problems

Water Conservation Tips:

- When you wash your car, park it in the grass. You'll wash the car and water the grass at the same time.
 - Repair dripping faucets. If a faucet is dripping at the rate of one drip per second, you lose 2,700 gallons of water in a year.
 - Run appliances only when you have a full load. These appliances waste large volumes of water when run partially loaded.
 - The toilet uses more water than anything else in the house. Check for toilet leaks by periodically putting food coloring in the tank. If the color shows up in the bowl without flushing, you have a leak which needs to be repaired.
 - Do not use the toilet as a wastebasket. Put your trash in the wastebasket.
 - Set lawnmower blades 1 inch higher. Longer grass means less evaporation.
 - Mulch your trees and landscaping plants to reduce evaporation and reduce your irrigation water use.
 - Use a broom or leaf blower rather than a hose to clean your sidewalk or driveway.
-

Prevent Stormwater Pollution

Storm drains do not discharge to the wastewater treatment plant, they discharge to [streams](#)

Storm Drain Pollutants include:

- Chemicals & Paint
- Motor Oils
- Bottles, Trash, & Debris
- Soaps, Detergents & Bleach
- Grass Clippings, Leaves, & Vegetation
- Washing Machine Discharge
- Sediment from Construction Runoff
- Pet wastes



**ONLY RAIN DOWN THE DRAIN!
NEVER POUR ANYTHING IN THE
DRAIN THAT YOU DO NOT WANT
IN YOUR DRINKING WATER**


Report any violations immediately to City of Lexington Water Resources at (336) 248-3930.

FOG from residences, institutions, and food service establishments causes wastewater blockages and overflows of the public wastewater system each year. The City of Lexington [Public Works Maintenance & Construction Department](#) is tasked with restoring wastewater flows and cleaning up areas affected by wastewater spills. [Sewer spills](#) from FOG can flow into open storm drains or drainage ditches that discharge to fresh water streams.

What Is FOG?

F.O.G. stands for **Fats, Oils, and Grease**

FOG comes from:

Meats		Vegetable, coconut & olive oils
Lard		Baked Goods
Shortening & margarine		Sauces & Dressings
Milk, butter, & cream		Peanut Butter & Sandwich Spreads



Prevent FOG with these simple steps:

ALWAYS A GOOD IDEA

- ✓ For small quantities of grease after cooking, wipe cooled pots, pans & utensils with a paper towel, and throw the paper towel in the trash

- ✓ Scrape or pour grease and food scraps into a can or jar, seal the container, and throw it in the garbage
- ✓ Use a strainer in the sink to catch food scraps, then toss the scraps in the trash
- ✓ Talk to your family about FOG. Prevent costly repairs to household plumbing and future back-ups at the street



Why Is FOG such a Problem?

When fats, oils, and grease are deposited into the sewer system, they coat the inside of pipes. Over time, FOG

builds up in the pipe and creates a blockage. Clogged pipes can result in:

- Raw sewage backing up into your home, yard, or street
- Human exposure to harmful bacteria
- Expensive clean-up and repairs
- Higher sewer bills due to the City's increased repair costs
- Contamination of surface waters & harm to wildlife

- ☒ Never pour grease or food scraps down the sink or into the toilet
- ☒ Don't use the disposal to attempt to rid of FOG—disposals move grease down the line and spread the problem to your house drain
- ☒ Hot water poured down the drain only moves the grease further down the line and creates a more concentrated clog
- ☒ Don't expect detergents to eliminate grease. These products only spread FOG through your drains and finally, the public sewer lines

STEER CLEAR



To report a sewer blockage or sanitary sewer overflow, contact Public Services at (336) 248-3930.

After hours, contact the utilities dispatcher at (336) 248-2337.

Help protect our community's drinking water sources and aid in preventing localized flooding by keeping our streams clean and unobstructed. Don't trash the creek. Report sewer spills, illegal dumping and other Stormwater impacts to the City of Lexington Water Resources Department at 336-248-3930.

